

State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF AIR QUALITY

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September 10, 1996

DAQE-850-96

LeGrand Bitters
Davis County Energy Recovery Facility
3404 North 650 East
Layton, Utah 84041

Dear Mr. Bitters:

Re: Approval Order Modification to BAQE-598-88, New Emission Limits
Davis County

The attached document is an Approval Order for the above referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Mike Beheshti. He may be reached at (801) 536-4069.

Sincerely,

Ursula K. Trueman, Acting Executive Secretary
Utah Air Quality Board

UKT:MMB:dn

cc: Davis County Health Department
Mike Owens, EPA Region VIII

Image Not
Available

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

APPROVAL ORDER MODIFICATION TO BAQE-598-88, NEW EMISSION LIMITS

**Prepared By: Mike M. Beheshti, Engineer
801-536-4069**

APPROVAL ORDER NUMBER

DAQE-850-96

Date: September 10, 1996

Source

DAVIS COUNTY ENERGY RECOVERY FACILITY

**LeGrand Bitters
801-771-3032**

**Ursula K. Trueman
Acting Executive Secretary
Utah Air Quality Board**

Abstract

This interim modified Approval Order [AO] is for the operation of the Davis County Energy Recovery Facility [DCERF]. It modifies AO-BAQE-598-88 to incorporate new emission limits brought about as a result of optimizing plant performance to minimize emissions using the installed equipment. The changes in operating procedures and minor modifications are the result of an extensive effort entered into by the facility as a result of an administrative agreement implemented via an experimental variance. The effort was intended to improve the facility's performance and establish the minimum emitting configuration for the facility. Compared to the emission limits specified in AO-BAQE-598-88, tests conducted at the end of the program to demonstrate achievable emission rates show 35.72 ton per year decrease in the emission of particulate matter, CO, and fluorides [PM by 7.88 tons, CO by 27.46 tons, HF by 0.38 tons]. In contrast, the results also show an increase of 249.68 ton per year in emissions of HCl, SO₂ and NO_x [HCl by 171.49 tons, SO₂ by 69.14 tons, NO_x by 9.05 tons on the basis of 24-hr averaging]. These emission estimates are based on 16,300 unit-hours of operation per year [nominally 8150 hours per year per unit] at the maximum potential emission rate rather than the average annual emission rate.

The facility consists of two 210 TPD refractory wall incinerators with waste heat recovery boilers. Its pollution control equipment includes two electrostatic precipitators to collect particulate matter and two dry sorbent injection systems to control acid gases. Dispersion modeling shows no violation of either the applicable National Ambient Air Quality Standards (NAAQS) or Prevention of Significant Deterioration (PSD) increments. Test results also show an average emission of 300 ng/dcm³ @ 7% O₂ of total dioxin and furans (equivalent to 7 ng/dcm³ @ 7% O₂ international toxic equivalents [ITEQ]).

Condition #8 [Testing Schedule] of this revised AO requires that the first performance test be conducted during January/February 1997 to obtain emissions under worst-case combustion conditions.

This source is subject to the requirements of the Title V Operating Permit Program and has submitted a complete permit application that is consistent with the October 26, 1993, Notice of Intent (NOI).

Finally, upon EPA's approval of the "state plan", incorporating the provisions of recently promulgated guidelines for existing municipal waste combustors, this AO will be reviewed and revised as appropriate.

The project has been evaluated and found to be consistent with the requirements of the Utah Air Conservation Rules [UACR] and the Air Conservation Act. The air quality AO authorizes the project with the following conditions, and failure to comply with any of the conditions may constitute a violation of this order.

General Conditions:

1. This interim AO is subject to review and modifications consistent with the implementation of applicable new state and/or federal regulations establishing limitations and/or emission guidelines concerning the operation of municipal waste combustors. The AO applies to the following company.

Davis County Energy Recovery Facility [DCERF]
3404 North 650 East
Layton, Utah 84041
Telephone: [801] 771-3032
Fax: [801] 771-6438

The equipment listed in paragraph 5 of this AO shall be operated at the following location:

PLANT LOCATION: 3404 North 650 east Highway 193, Layton, Utah

Universal Transverse Mercator (UTM) Coordinate System:

4551.230 km Northing, 419.830 km Easting

2. Definitions of terms, abbreviations, and references used in this AO conform to those used in the UACR, Utah Administrative Codes (UAC), and Part 40 of the Code of Federal Regulations (40 CFR). These definitions take precedence unless specifically defined otherwise herein.
3. DCERF shall maintain the configuration described in this AO. It shall also maintain and operate the municipal waste incinerator facility according to the terms and conditions of this AO.
4. A copy of this AO shall be posted on site along with the steam raising rate, reagent injection rate(s) and air pollution control system inlet temperatures established during the most recent compliance test. The results of the most recent test and associated process limit shall be substantially in the form of and supersede Attachment I. The AO shall be available to the employees who operate the air emission producing equipment. These employees shall receive instruction as to their responsibilities in operating the equipment according to all of the relevant conditions listed below.
5. The approved installation consists of the following equipment located adjacent to Hill Air Force Base approximately 2100 feet north of Highway 193.
 - A. Two Seghers refractory wall furnace municipal waste incinerators, ID # 4-9-84-A and 4-9-84-B.
 - B. Two Zurn waste heat recovery boilers, ID # 19268 and 19269.
 - C. Two Environmental Elements electrostatic Precipitators, ID # 420190A and 420190B.
 - D. One exhaust stack with two flue liners and two separate atmospheric discharges, one for each municipal waste combustor [MWC].
 - E. Two duct sorbent injection systems consisting of redundant dry powder reagent [lime or Trona based] storage, delivery and injection systems for acid gas control.
 - F. Two 30 million BTU/hr auxiliary fuel start-up burners using oil or natural gas as fuel.
 - G. One Peerless Pump Company fire pump, ID # 1W315 with a 231 HP caterpillar diesel prime mover.
6. This AO replaces all previous AOs for the facility including those issued to Katy-Seghers, on February 24, 1984, December 18, 1984, November 13, 1986, June 03, 1986,

February 26, 1987, October 7, 1988 and the AO DAQE 718-96 issued to DCERF on July 15, 1996. A NOI dated October 26, 1993, requested modification of the existing AO. The NOI was supplemented by additional information submitted to the Executive Secretary through August 1996.

Limitations and Tests Procedures:

7. Emissions to the atmosphere from each discharge point of the bi-flue stack [one stack with two independent atmospheric discharges serving the entire facility] shall not exceed the following rates and concentrations, all on a dry basis and corrected to 68EF, 14.7 psia and 7% oxygen when tested and at least 95 percent of the annual operating hours for all continuous emission monitoring systems (CEMS) monitored pollutants:
 - PM₁₀: 0.024 grain/dscf @ 7% O₂ [arithmetic average of three 1.7-cubic meter minimum sample volume stack test runs]
 - SO₂: 110 ppm_{dv} @ 7% O₂ [24 hour geometric mean of 1-hour averages]
 - NO_x: 400 ppm_{dv} @ 7% O₂ [24 hour arithmetic mean of 1-hour averages]
 - HCl: 330 ppm_{dv} @ 7% O₂ [arithmetic average of three 1-hour minimum stack test runs]
 - CO: 100 ppm_{dv} @ 7% O₂ [4 hr. block average of 1-hour averages]
 - Fluorides: 3.4 mg/dscm @ 7% O₂ [arithmetic average of three 1-hour minimum stack test runs]
 - Mercury: 1.7 mg/dscm @ 7% O₂ [arithmetic average of three 2-hour minimum stack test runs]
 - Lead: 1.5 mg/dscm @ 7% O₂ [arithmetic average of three 2-hour minimum stack test runs]
 - Cadmium: 0.11 mg/dscm @ 7% O₂ [arithmetic average of three 2-hour minimum stack test runs]
 - Dioxin/Furan: 360 ng/dscm @ 7% O₂ [total tetra- through octa-polychlorinated dibenzo-p-dioxin and dibenzofuran homologues, arithmetic average of three 4-hour minimum stack test runs]
 - Boiler Steam Flow [less than 110 percent of the maximum 4-hr run average level demonstrated during the most recent dioxin/furan test [4-hour block average]
 - Flue gas oxygen content at the boiler outlet [wet basis] greater than 7%
 - Flue gas temperature in the incinerator throat [TE 101/201] above 1700 EF [6-minute block average] when waste is being burned.

-Particulate Air Pollution Control Device Inlet Temperature no more than 30°F above the maximum 4-hr run average temperature demonstrated during the most recent dioxin/furan test [4-hour block average]

-Reagent feed rate for acid gas control: [hourly average no less than the minimum feed rate demonstrated during any run of the most recent compliance test.]

-Other reagent feed rate: [hourly average no less than the minimum feed rate demonstrated during any run of the most recent compliance test.] (if utilized)

-Stack Opacity: less than 10 percent [6-minute average]

-Fugitive Emissions [from any source]: visible less than 5 percent of the observation period [maximum 9 minutes in 3-hours]

These standards apply except during periods of startup, shutdown, or malfunction. Duration of startup, shutdown or malfunction periods are limited to three hours per occurrence. Startup commences when continuous burning of municipal solid waste begins and does not include any warm-up period when only fossil fuel is being combusted.

The following emission rates are not enforceable limits. They are provided to ease comparison to previous AOs for this source. The allowable emitted concentrations are equivalent to the following mass emission rates when an incineration unit is operating at its rated capacity: Particulate matter = 4.15 lb/hr. SO_x = 20.95 lb/hr. NO_x = 50.89 lb/hr. HCl = 38.22 lb/hr. CO = 12.3 lb/hr. Fluorides = 0.26 lb/hr. Lead = 0.11 lb/hr. Mercury = 0.127 lb/hr. Cadmium = 0.008 lb/hr. Total dioxin and furan - 2.7×10^{-5} lb/hr.

Compliance Demonstrations

8. Stack Testing to show compliance with the emission limitations specified in the above condition shall be performed as specified below:

A. Manual Reference Methods [40 CFR 60]:

PM₁₀ Appendix A, Reference Methods 1, 3 and 5, including back half condensable using the method specified by the Executive Secretary. All particulate captured shall be considered PM₁₀. Alternatively, 40 CFR 51, Appendix M, Methods 201 or 201a plus the back half condensable using the method specified by the Executive Secretary may also be employed to demonstrate compliance.

O₂ Appendix A, Method 3B

Stack Opacity Appendix A, Method 9

Fugitive Emissions Appendix A, Method 22

HF Appendix A, Methods 26 or 26A

HCl Appendix A, Methods 26 or 26A

Hg Appendix A, Methods 3, 29

Pb Appendix A, Methods 3, 29

Cd	Appendix A, Methods 3, 29
Dioxins/Furans	Appendix A, Method 23
Sample Location:	Appendix A, Method 1
Volumetric Flow Rate:	Appendix A, Method 2
Calculations:	As described in the Method being used and this paragraph

B. Continuous Compliance Assurance Monitors [40 CFR 60]:

Oxygen	CEMS [Appendix B, Performance Specification 3]
Carbon monoxide	CEMS [Appendix B, Performance Specification 4A, Method 19]
Nitrogen oxide	CEMS [Appendix B, Performance Specification 2, Method 19]
SO ₂	CEMS [Appendix B, Performance Specification 2, Method 19]
Opacity	COMS [Appendix B, Performance Specification 1]
Steam flow	ASME nozzle flow orifice
Furnace temperature	Industrial thermocouples in thermo-well [TE 101/201]
ESP inlet temperature	Industrial thermocouples in thermo-well [TE 109/209]
Acid gas reagent flow	Change in the weight of the storage bin determined by strain gauge converted by the plant's distributed control system into pounds per hour.
Other reagent flow	Feed screw speed, or loss of weight feeder signal, etc. [if utilized]

For carbon monoxide, oxides of nitrogen and sulfur dioxide, continuous emission monitors shall be used to demonstrate compliance. In addition to the existing CO and O₂ CEMS, installation of permanent NO_x and SO₂ CEMS on each combustor exhaust and an initial relative accuracy test audit [RATA] of the monitor shall be completed within 360 days of the date of this AO. All CEMS and COMS read-outs shall be safely and readily accessible to operators and inspectors.

The monitors shall be operated in accordance with applicable 40 CFR 60 Quality Assurance Procedures in Appendix F, Procedure 1 including quarterly Cylinder Gas Audits [CGA] and annual RATA requirements.

At a minimum, valid CEMS and COMS data shall be acquired for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter. At least two data points shall be acquired per hour and used to calculate each 1-hour arithmetic average. The 1-hour averages shall be corrected to 7% O₂ before calculating the regulatory averaging time block averages and geometric means. Four-hour block averages shall be calculated over four-hour periods of time from 12:00 midnight to 4 a.m., 4 a.m. to 8 a.m., 8 a.m. to 12:00 noon, 12:00 noon to 4 p.m., 4 p.m. to 8 p.m., and 8 p.m. to 12:00 midnight. Twenty-four-hour averages and geometric means are calculated over a 24-hour period beginning at 12:00 midnight and ending the following midnight.

Temperature elements and transmitters associated with steam flow rate and furnace and ESP inlet temperature measurements shall be maintained in accordance with manufacturers' recommendations and calibrated at least once a year.

The steam flow may be used to convert the CEMS results [in ppm_{dv} corrected to 7% O₂] to mass flow rates [lbs/hr]. The conversion shall use the plant specific relationship that 1 lb/hr of steam produces 0.6707 dscm of stack gas adjusted to 7% O₂ reference conditions. The plant specific relationship between steam flow and stack gas flow rate was developed using simultaneous steam flow meter reading in lbs/hr and measured stack gas flow rate data expressed as dscm/hr and multiplied by $[20.9 - O_2]/[20.9 - 7]$ and may be revised with the approval of the Executive Secretary upon submittal of new stack and steam flow measurement which demonstrate the relationship has changed. The calculation of mass emission rate will also use the identity that ppm_{dv} @ 7% O₂ multiplied by molecular weight and divided by 24.042 is the concentration in milligram/dscm @ 7% O₂ [as needed] and appropriate unit conversion so that the final answer is expressed in lb/hr of pollutant emitted. The facility shall maintain ppm_{dv} @ 7% O₂ records for CO, SO₂ and NO_x.

Notification

Notification of the stack testing date and test plan shall be provided at least 45 days prior to the test. The test plan shall include the methods, quality assurance procedures to be followed, and the testing firm and analytic laboratory to be used. An optional pretest conference will be held as directed by the Executive Secretary or requested by the source. The pretest conference shall be held at least 30 days prior to the test and involve the owner/operator, the testing firm, and the Executive Secretary's representative.

Stack Testing Schedule

Initial compliance stack testing shall be done for all contaminants specified in this approval order for both incinerators during January/February 1997, unless the District notifies the Executive Secretary in writing that the District is proceeding with physical plant modifications to comply with applicable emissions guideline requirements. In this event, compliance testing shall be performed within 180 days of modification completion. The Executive Secretary is fully aware that performing the requisite tests may prove impossible during very cold weather due to procedural difficulties and will allow rescheduling testing to more clement weather should the ambient temperature be below 20°F at the start of the scheduled test. Such a delay will not adversely affect the validity of the data since cold weather operation is only known to affect CO, a pollutant monitored by CEMS.

Retesting shall be done as stated below:

- A. Annual stack tests shall be conducted for both units for PM, Pb, HCl, HF, Hg, Cd and Dioxins/Furans. If either one of the units demonstrates emissions less than half the dioxin and metal emission limitations contained in this AO, retesting frequency shall be reduced to once every three years for those pollutants as long as the periodic retest confirms the above continued low emission rates.
- B. Annual testing for fugitive ash.

9. No later than February 1 of each year, an Annual Report of Summary Data collected for all regulated pollutants including the highest averaging period result for each CEMS and COMS monitored pollutant from each unit shall be submitted and the number of days that the minimum number of hours of data were not collected shall be identified. Variances from emission or work practice parameter limitations shall be highlighted. Quarterly reports of excessive emissions and variances from work practice parameter limitations shall be submitted to the Executive Secretary in accordance with the contents and format of Division of Air Quality's (DAQ) Compliance Report.
10. Annual operation shall be restricted by the following work practice and limitations:
 - A. The combined unit-hours per year for each emission source, including periods of start-up, shut-down and partial load operation shall not exceed 16,300 unit hours per year, without approval by the Executive Secretary in accordance with R307-1-3.1, UAC.
 - B. The total combined weight of waste incinerated in both units shall not exceed 140,000 tons of municipal waste per year without prior approval from the Executive Secretary in accordance with R307-1-3.1, UAC.

Operation of the diesel fire pump shall not exceed a cumulative total of 208 hours per year.

Compliance with the annual limitations shall be determined on the basis of a rolling 12-month total for unit hours of operation, tons of MSW consumed and hours of diesel fire pump operation. The owner/operator shall calculate a new 12-month total based on the first day of each month using data from the previous 12 months.

Unit-hours of incinerator operation shall be determined as each whole hour or *pro rata* part of an hour the feed chute doors are open in each incinerator. Records of waste received, bypassed, recycled and incinerated, steam flow, temperature at the ESP inlet and feed chute door position shall be kept for all periods when the plant is in operation. These records, including rolling 12-month totals of waste incinerated [and updated on the first day of each month] shall be made available to the Executive Secretary or his/her representative upon request and shall include a period of two years ending with the date of the request. Delivery, bypass and fee records may be used to determine the amount of waste incinerated during periods when the facility's crane scales are inoperative. All records shall be kept daily. The plant's data historian may be used to maintain this log. Hours of operation shall be determined by the supervisor who shall monitor and maintain the operations log.

11. To control acid gases, the source shall inject dry powdered hydrated lime or Trona down stream of the boiler of each incineration unit. To control mercury and dioxins/furans, the source may elect to inject powdered activated carbon [PAC]. If PAC is injected, the source shall calibrate the PAC feeder and maintain records of primary measurement [feed screw speed, for example] and the feed rate converted into lbs/hr feed rate units.

The injection rates shall be reported to the Executive Secretary in the DAQ's Quarterly Compliance Report. Compliance shall be determined using the data on the continuous

reagent injection rate report. The most recent two-year records of injection rates shall be made available to the DAQ upon request.

12. Combustion in each incinerator shall be controlled by an automated control system. The control system shall continuously monitor at least the following parameters and make appropriate adjustments to ensure good combustion:
 - A. Oxygen content in the flue gas at boiler outlet (wet basis)
 - B. The gas temperature in the furnace throat when MSW is being burned.
 - C. CO at the stack
 - D. Steam production rate
 - E. Gas temperature at the mid-point of the incinerator combustion chamber before MSW is introduced into the furnace.
13. The plant shall develop and maintain an Operating and Maintenance [O&M] manual for DCERF. The O&M manual shall include at least: a summary of applicable regulatory standards and permit restrictions; a description of the basic combustion theory applicable to the DCERF units; procedures for receiving, handling and feeding MSW at DCERF; start-up, shutdown and malfunction procedures including the proper use of the 30 million Btu/hr fossil fuel fired combustion chamber preheat burners before waste is introduced into the incinerator; procedures to maintain proper combustion air supply levels; procedures for operating the facility within regulatory limits; procedures for responding to periodic upset or off-specification conditions; procedures for minimizing particulate matter carryover; procedures for handling ash; procedures for monitoring and testing emissions including plant data to be recorded and provided by the plant as a supplement to an emissions test contractor's report; and reporting and record keeping requirements. This O&M manual shall be reviewed at least annually and updated as necessary.
14. All plant roads and parking areas shall be paved. Fugitive emissions shall be controlled according to the requirements of UACR: R307-12. All open areas shall be landscaped or grassed to minimize dust emissions.
15. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, Subparts A and E shall apply to this facility.
16. No material other than municipal solid waste and virgin #2 oil or natural gas shall be used in this facility. Municipal solid waste shall be as defined in UAC R315-302-2(45). Occasional small quantities of substances approved by the Davis County Health Department for destruction at the DCERF, classified documents and similar materials requiring special handling and witnessing of destruction that are delivered directly to the feed hopper after weighing are specifically included within this definition.

The facility is prohibited from burning the following classes of material:

- A. Hazardous waste
- B. Radioactive waste
- C. All wastes included in Section 2.2, EPA Guide for infectious waste management [EPA/530-SW-860014, May 1986]

Fuels

- 17. The owner/operator shall use only natural gas or #2 oil as supplemental fuel.
- 18. The sulfur content of any fuel oil burned shall not exceed 0.5 percent by weight. Sulfur content shall be measured using ASTM Method D-4294-89, or approved equivalent. The sulfur content shall be tested if directed by the Executive Secretary.

Operator Training

- 19. At all times DCERF is operating, a certified chief facility operator or shift supervisor shall be on duty. A provisionally certified control room operator who is on site may fulfill this requirement. The chief facility operator and shift supervisors shall have completed appropriate training courses and have and maintain provisional operator certification from the American Society of Mechanical Engineers [QRO-1-1994] until such time as full certification becomes available in the State of Utah. Within six months of the State of Utah developing their State certification program, the chief facility operator and shift supervisors shall either complete full certification or have scheduled their full certification examination. Training records or logs for chief facility operators and shift supervisors shall be maintained at the facility. At a minimum, training records shall include: name; position; date of training; who conducted the training; training syllabus; certification date; renewal date for next certification.

Records & Miscellaneous

- 20. The owner/operator shall make and keep the following records:
 - A. All records referenced in this AO order or in applicable New source performance standards (NSPS), Guidelines and national emission standards for hazardous air pollutants (NESHAPs).
 - B. Names of chief facility operator, shift supervisors and control room operators with provisional and full certification [Cond. #19]
 - C. Log showing operator training, certification and renewal dates [Cond. # 19]
 - D. Fuel consumption to preheat and burn down the incinerators [Cond. # 12]
 - E. Tons of waste incinerated in per day and 12-month rolling average [Cond. # 10]
 - F. Hourly steam production [Cond. # 12]

- G. Temperature entering the particulate control device [Cond. #8]
- H. Hourly reagent feed rate(s) and calendar quarter usage [Cond. # 7, 11]
- I. Emission test reports [Cond. # 8]
- J. Maintenance records [Cond. # 13]
- K. Upset, breakdown episodes [Cond. # 23]
- L. Emergency episodes [Cond. # 24]
- M. Hours of operation for each unit [Cond. # 10]
- N. CEMS¹ and COMS² records [Cond. #8, 12]
- O. Plant Operation and Maintenance [O&M] manual with revision log [Cond. # 13]
- P. Log identifying dates and persons reviewing the plant O&M manual [Cond. # 13]

The records shall be retained for at least five years and made available to the Executive Secretary or his/her representative upon request. These records shall contain the calendar date of each entry, test or modification and the date any emissions limitation or work practice restriction (reagent feed rate, steam production rate or APCS inlet temperature) is breached, estimated total and incremental emissions, the reason for the breach and corrective action taken.

21. All installations and facilities authorized by this AO shall be properly installed and adequately and properly maintained. All pollution control equipment shall be operated in accordance with the plant operating and maintenance manual. Instructions from the vendor or established operating and maintenance practices that maximize pollution control shall be used.

All necessary equipment control and operating devices, such as pressure gauges, current meters, volt meters, flow rate indicators, temperature gauges, CEMS, etc., shall be properly installed, operated, maintained, and shall be readily accessible to operators and compliance inspectors. A copy of the plant operating instructions for pollution control equipment and pollution emitting equipment shall be kept on site. These instructions shall be available to all employees who operate the equipment and shall be made available to compliance inspectors upon their request.

¹CEMS = Continuous Emission Monitoring System.

²COMS = Continuous Opacity Monitoring System

22. The owner/operator shall comply with R307-1-3.5, UAC. Emission inventory reporting requirements.
23. The owner/operator shall comply with R307-1-4.7, UAC. Unavoidable breakdown reporting requirements. The owner/operator shall calculate/estimate the excess emissions whenever a breakdown occurs. The total and excess emissions shall be reported to the Executive Secretary as directed for each calendar year.
24. The owner/operator shall submit to the Executive Secretary an emergency plan within 60 days of the date of this AO. The plan shall identify what control/production measures the owner/operator will implement when an emergency episode is declared by the Executive Director of the Department of Environmental Quality. Specific emission reduction measures shall be outlined for all three levels (Alert, Warning, Emergency). The values for the various levels are listed in R307-1-5, UAC. Also see 40 CFR, Part 51, Subpart H (40 CFR 51.150 to 153) and Appendix L. The emergency plan shall be approved by the Executive Secretary. The Alert Level actions to be taken should be curtailment of all unnecessary activities causing air pollution. The other two levels of actions should be a progressive curtailment of production and activities causing pollution, to the point of complete shutdown of operations.
25. Any future modifications to the equipment approved by this order must also be approved in accordance with R307-1-3.1.1, UAC.
26. This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including the UACR.
27. DCERF has decommissioned and demolished two permitted emergency generators [Caterpillar models 3412 (475 kW) and 3512 (1,250 kW)]. 2.7 tons per year of particulates, 22.8 TPY of NO_x and 2.4 TPY of CO are banked for future use as an emissions offset credit.

The source has submitted the following estimates for annual emissions from the entire facility (both incineration units) based on test condition potential to emit rather than actual annual emissions.

<u>Pollutants</u>	<u>Current AO Emissions tons/year</u>	<u>New AO Emissions tons/year</u>	<u>Change in Emissions tons/year</u>
Particulate	41.70	33.82	-7.88
PM ₁₀	33.82	33.82	0.00
SO ₂	101.60	170.74	69.14
NO _x	405.70	414.75	9.05
CO	127.7	100.24	-27.46
HCl	140.00	311.49	171.49
HF	2.50	2.12	-0.38
Hg	0.53	1.03	0.50
Lead	0.96	0.90	-0.06

VOC	Not specified	12.4	0.00
Cadmium	Not specified	124.0 lb/yr	0.00
Dioxin/Furan	Not specified	0.44 lb/yr	0.00

These calculations are for the purposes of determining the applicability of PSD and Nonattainment area major source requirements of the UACR.

In accordance with the requirements of Title V of the 1990 Clean Air Act, the following estimated [or actual] emissions are subject to an operating permit fee.

<u>Pollutants</u>	<u>Current AO Emissions tons/year</u>	<u>New AO Emissions tons/year</u>	<u>Change in Emissions tons/year</u>
PM ₁₀	33.82	33.82	0.00
SO ₂	101.60	170.74	69.14
NO _x	405.70	414.75	9.05
CO	127.7	100.24	-27.46
HCl	140.00	311.49	171.49
HF	2.50	2.12	-0.38
Hg	0.53	1.03	0.50
Lead	0.96	0.90	-0.06
VOC	Not specified	12.4	0.00

These calculations are for the purposes of determining the applicability of Prevention of Significant Deterioration and nonattainment area major source requirements of the UAC R307. They are not to be used for purposes of determining compliance.

Approved By:

Ursula K. Trueman, Acting Executive Secretary
Utah Air Quality Board